Weekly Report

Period: *04/21/2014 – 04/27/2014*

Projects

Research

Besides the group paper report and the revision of Vis2014 paper, I implemented a fiber cleaner tool for the cluster-projection based fiber model difference analysis project. This tool is designed to filter fibers for a given fiber model according to different criterion. Currently, each fiber model contains more than 60,000 fibers. The conventional cluster and projection techniques cannot handle such size of dataset. Therefore, I use this tool to reduce the size of the dataset.

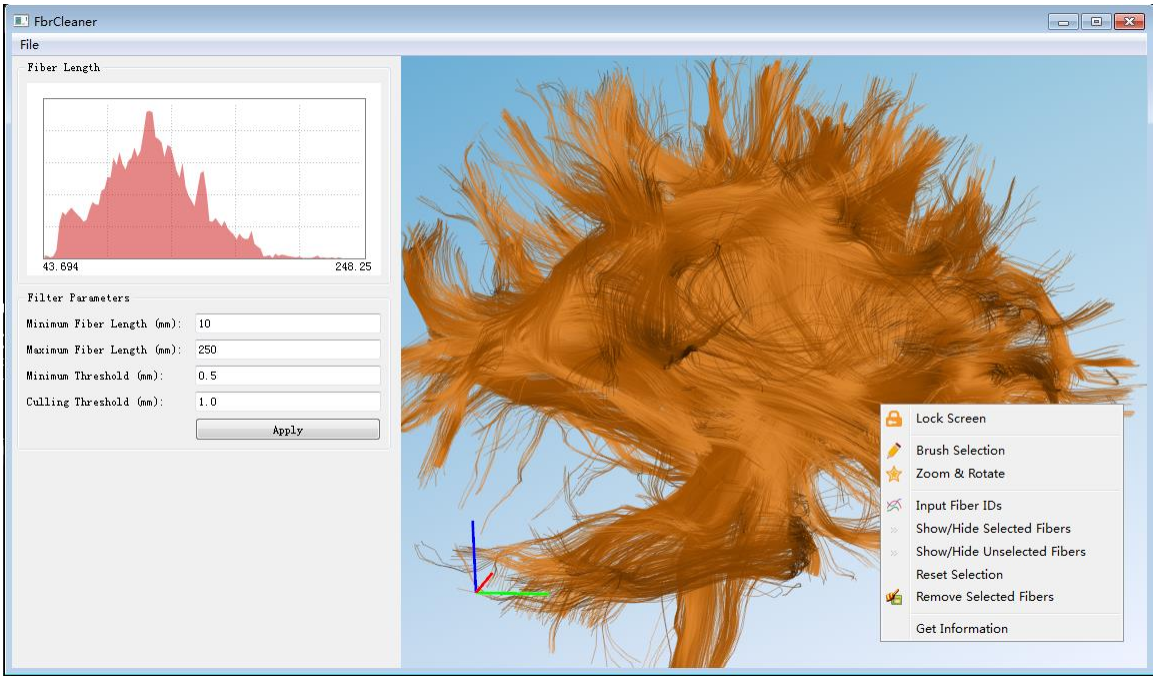

Figure 1 The interface of fiber cleaner

In terms of clustering, I tried the spectral clustering method implemented based on [1]. I also evaluated the capability and the correctness of this method. One great advantage of this method is that it does require the input dataset must be in a vector space. Instead, a pairwise dissimilarity/distance matrix is the only input of this method.

Work to be done in next week

- Finish the revision of the TVCG paper
- Implement the Model-wise Laplacian Projection method

Reference:

[1] S. Oeltze, D.J. Lehmann, H. Theisel, B. Preim. Evaluation of Streamline Clustering Techniques for Blood Flow Data, 2012.